Section II-iii-J

Soil Features

This table gives estimates of several important soil features which are used in land use planning that involves engineering considerations. Soil features which are covered include bedrock depth and hardness, cemented pan depth and hardness, subsidence, potential frost action, and risk of corrosion for uncoated steel or for concrete.

Depth to Bedrock

This value is given if bedrock is within a depth of 60 inches. The depth is based on many soil borings and observations made during soil mapping. The rock is specified as either soft or hard. If the rock is soft, excavations can be made with trenching machines, backhoes, or small rippers. If the rock is hard or massive, blasting or special equipment generally is needed for excavation.

Cemented Pan

Cemented pan is a nearly continuous layer of indurated or strongly cemented material having a hard, brittle consistency because the particles are held together by cementing substances such as, calcium carbonate, or oxides of silicon, iron, or aluminum. These layers are identified when they occur within a depth of 60 inches. Pans are classified as "thin" or "thick". "Thin" cemented pans are thin enough so that excavations can be made with trenching machines, backhoes, or small rippers and other equipment common to construction of pipelines, sewerlines, cemeteries, and the like. "Thick" cemented pans are sufficiently thick or massive to require blasting or special equipment beyond which is considered normal in excavating for this type of construction.

Subsidence

Subsidence potential is the maximum possible loss of surface elevation from the drainage of wet soils having organic layers or semifluid mineral layers. Estimates of the depth of subsidence (in inches) that takes place soon after drainage (initial subsidence) and after oxidation (total subsidence) are given for soils that are likely to subside.

Potential Frost Action

This is the likelihood of upward or lateral movement of soil by the formation of segregated ice lenses (frost heave) and the subsequent loss of soil strength upon thawing. The following classes are used in regions where frost action is a potential problem: (1) Low -- soils are rarely susceptible to the formation of ice lenses, (2) Moderate -- soils are susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength, and (3) High -- soils are highly susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength.

Risk of Corrosion

Various metals and other materials corrode when on or in the soil, and some metals and materials corrode more rapidly when in contact with specific soils than when in contact with others. Corrosivity ratings are given for two of the common structural materials, uncoated steel and concrete. The risk of corrosion classes are low, moderate, and high.

See the National Soil Survey Handbook, Part 618, for definitions and discussion of particular properties.

Soil Features

York County, Maine

Absence of an entry indicates that the feature is not a concern or that data were not estimated.

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Total	Action Steel	Uncoated	Concrete
	Kind	In	In		In	In				
AdB:										
Adams	---	---	---	---	0	---	Low	Low	High	
AdC:										
Adams	---	---	---	---	0	---	Low	Low	High	
AdD:										
Adams	---	---	---	---	0	---	Low	Low	High	
AgB:										
Adams	---	---	---	---	0	---	Low	Low	High	
Urban Land	---	---	---	---	0	---	None	---	---	
AlB:										
Allagash	---	---	---	---	0	---	Moderate	Low	High	
AlC:										
Allagash	---	---	---	---	0	---	Moderate	Low	High	
Ba:										
Beaches	---	---	---	---	0	---	Low	High	High	
BcB:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
BcC:										

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Total	Action Steel	Uncoated	Concrete
	Kind	In	In		In	In				
BcC:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
BcD:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
BeB:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
BeC:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
BeD:										
Becket	---	---	---	---	0	---	Moderate	Low	Moderate	
Bm:										
Biddeford	---	---	---	---	0	---	High	High	Moderate	
BrB:										
Brayton	---	---	---	---	0	---	High	High	Moderate	
Westbury	---	---	---	---	0	---	Moderate	Moderate	High	
BsB:										
Brayton	---	---	---	---	0	---	High	High	Moderate	
Westbury	---	---	---	---	0	---	High	Moderate	High	
BuB:										

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Total	Action Steel	Uncoated	Concrete
	Kind	In	In		In	In				
BuB:										
Buxton	---	---	---	---	0	---	High	High	Moderate	
BuC:										
Buxton	---	---	---	---	0	---	High	High	Moderate	
BuD:										
Buxton	---	---	---	---	0	---	High	High	Moderate	
Ch:										
Chocorua	---	---	---	---	0	---	High	Moderate	High	
CoB:										
Colton	---	---	---	---	0	---	Low	Low	High	
CoC:										
Colton	---	---	---	---	0	---	Low	Low	High	
CoD:										
Colton	---	---	---	---	0	---	Low	Low	High	
CoE:										
Colton	---	---	---	---	0	---	Low	Low	High	
CrB:										
Croghan	---	---	---	---	0	---	Moderate	Low	High	
CuB:										
Croghan	---	---	---	---	0	---	Moderate	Low	High	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Total	Action Steel	Uncoated	Concrete
	Kind	In	In		In	In				
CuB:										
Urban Land	---	---	---	---	0	---	None	---	---	
Dm:										
Dumps	---	---	---	---	0	---	None	---	---	
EmB:										
Elmwood	---	---	---	---	0	---	High	Moderate	Moderate	
EmC:										
Elmwood	---	---	---	---	0	---	High	Moderate	Moderate	
HeB:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HeC:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HeD:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HmB:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HmC:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HmD:										
Hermon	---	---	---	---	0	---	Low	Low	High	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top	Thickness	Hardness	Initial	Total	Action	Uncoated	Concrete
	Kind		Thickness	Hardness				Steel		
		In	In		In	In				
HnC:										
Hermon	---	---	---	---	0	---	Low	Low	High	
HnE:										
Hermon	---	---	---	---	0	---	Low	Low	High	
LnB:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
LnC:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
LnD:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
LyB:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	
LyC:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	
LyE:										
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Total	Action Steel	Uncoated	Concrete
	Kind	In	In		In	In				
MaB:										
Madawaska	---	---	---	---	0	---	Moderate	Moderate	High	
MrB:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
MrC2:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
MrD2:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
MvB:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
MvC:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
MvD:										
Marlow	---	---	---	---	0	---	Moderate	Low	Moderate	
Na:										
Naumburg	---	---	---	---	0	---	Moderate	High	High	
On:										
Ondawa	---	---	---	---	0	---	Moderate	Low	Moderate	
PeB:										
Peru	---	---	---	---	0	---	High	Moderate	Moderate	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top	Thickness	Hardness	Initial	Total	Action	Uncoated	Concrete
	Kind		Thickness	Hardness				Steel		
		In	In		In	In				
Pg:										
Pits	---	---	---	---	0	---	None	---	---	
Po:										
Podunk	---	---	---	---	0	---	High	Moderate	Moderate	
Winooski	---	---	---	---	0	---	High	Moderate	Moderate	
Ra:										
Raynham	---	---	---	---	0	---	High	High	Moderate	
RoC:										
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
RoE:										
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Ru:										
Rumney	---	---	---	---	0	---	High	High	High	
Sa:										
Saco	---	---	---	---	0	---	High	High	Moderate	
Sc:										
Scantic	---	---	---	---	0	---	High	High	Moderate	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top	Thickness	Hardness	Initial	Total	Action	Uncoated	Concrete
	Kind		Thickness	Hardness				Steel		
		In	In		In	In				
SeB:										
Scio	---	---	---	---	0	---	High	Low	Moderate	
SeC:										
Scio	---	---	---	---	0	---	High	Low	Moderate	
SeD:										
Scio	---	---	---	---	0	---	High	Low	Moderate	
Sg:										
Sebago	---	---	---	---	0	---	High	High	High	
SkB:										
Skerry	---	---	---	---	0	---	High	Low	Moderate	
SkC:										
Skerry	---	---	---	---	0	---	High	Low	Moderate	
SrB:										
Skerry	---	---	---	---	0	---	High	Low	Moderate	
SrC:										
Skerry	---	---	---	---	0	---	High	Low	Moderate	
Su:										
Sulfihemists	---	---	---	---	---	---	None	High	High	
Ud:										
Udipsamments	---	---	---	---	0	---	Low	High	High	

Soil Features - Continued

York County, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost	Risk of Corrosion		
	Kind	Depth to Top	to Top	Thickness	Hardness	Initial	Total	Action	Uncoated	Concrete
	Kind		Thickness	Hardness				Steel		
		In	In		In	In				
Ud:										
Dune Land	---	---	---	---	0	---	None	---	---	
Ur:										
Urban Land	---	---	---	---	0	---	None	---	---	
UsA:										
Urban Land	---	---	---	---	0	---	None	---	---	
Scantic	---	---	---	---	0	---	High	High	Moderate	
Va:										
Vassalboro	---	---	---	---	0	---	High	High	High	
Vp:										
Vassalboro	---	---	---	---	0	---	High	High	High	
Wa:										
Waskish	---	---	---	---	0	---	High	High	High	